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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,280	06/20/2003	Helmut Muckter	MUCKTER-2	6448
7590	12/09/2005		EXAMINER	
Ursula B. Day Suite 4714 350 Fifth Avenue New York, NY 10118			WILLSE, DAVID H	
			ART UNIT	PAPER NUMBER
			3738	

DATE MAILED: 12/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/601,280

Applicant(s)

MUCKTER, HELMUT

Examiner

Dave Willse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,4-6,8 and 10-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,4-6,8 and 10-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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Amended claims 13, 15, 16, and 19 are inaccurately rewritten under 37 CFR 1.121(c).

For example, in claim 15, line 2, “to each other” should have been underlined.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2, 16, and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. In claim 2, lines 2-3, the added language “at least one” is not believed to be supported in the original disclosure. In claim 16, line 2, the auxiliary motor being disposed *in* the housing (emphasis added) is neither found in the original specification nor shown in the drawings. In claim 22, the motor being “encapsulated” is likewise not found in the original disclosure. The Applicant has failed to specifically point out the support in the original disclosure for each of the newly presented claim limitations (MPEP § 714.02) and must do so in response to the present Office action.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 11, 12, 19, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 2, line 2, --of-- should apparently be inserted after “consisting”. Claim 11 is mathematically confusing in that a *diameter* is being compared to an

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*area* to obtain a percentage; it is recommended that a ratio (expressed as a percentage) of respective diameters *or* respective areas be positively recited instead. Claim 12 is vague and indefinite: the diameter is 50% relative to what? Claim 19 is vague and confusing as to whether “a blood pump” (line 3) and “a connecting device” (line 5) are the same as or different from the blood pump and connection devices set forth in claim 21.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 8, 10-12, 19, 21, and 22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rau et al., US 6,116,862, which discloses a pump housing **10**, an impeller **22**, a motor **16**, webs **53** and **54** for firmly holding the motor within the pump housing (Figure 3; column 4, lines 9-12), and vascular connection devices taking on the form of frustoconical surfaces formed at the inlet **12** and the outlet **18** and being *capable* of directly attaching to a vascular prosthesis or to a blood vessel outside the heart for a tubeless connection, whether or not such was the intent. Regarding claim 22: column 2, line 66, through column 3, line 1; column 1, lines 37-41; etc. Regarding claim 10, the webs **53** and **54** are *capable* of housing cables for the transmission of electrical current, whether or not such was the intent; in fact, such

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a configuration would have been inherent because the passage 17 (column 2, lines 47-48) of the first embodiment (Figure 1) does not exist in the second embodiment (Figure 3).

Claims 2, 4, 5, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rau et al., US 6,116,862. Regarding claim 2, vascular prostheses would have been obvious in order to replace diseased vascular tissue and/or to ensure a proper fit with inlet 12 and outlet 18. Regarding claims 4 and 5, reducing the length of the pump housing 10 would have been obvious in order to reduce the overall weight of the device (while maintaining an adequate flow area) and/or to lessen the amount of vascular tissue to be removed and/or to reduce the power of a chronic supporting pump (column 2, lines 15-16). Regarding claim 20, the use of sutures would have been obvious in order to minimize tissue trauma.

Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rau et al., US 6,116,862, in view of Chardack, US 4,957,504. Rau et al. lack a second pump housing with an impeller and a motor. Chardack teaches two parallel pumps for effecting various types of synchronized pumping (column 5, line 54 et seq.). To similarly arrange a second blood pump in parallel with the first in the invention of Rau et al. would have been obvious in order to achieve various combinations of continuous or pulsatile flow and/or to simply provide a redundant pump as a backup, with further motivation having been provided by both references being directed to ventricular assist via rotary pumping. Regarding claim 14, an adaptable connection device would have been obvious from the harness 78 of Chardack in order to facilitate control of the two pumps (Chardack: column 5, lines 54-62). Regarding claim 15, the word "drive" means "[t]o push, propel, or press onward forcibly" (*Webster's II New Riverside University Dictionary*, 1984); the Rau et al. motor 16 is certainly capable of accelerating and decelerating (if not

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reversing direction), so the motor is capable of propelling or forcing the impeller **22** in one direction or the other (via the magnets **28**) so as to speed up or slow down said impeller.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rau et al., US 6,116,862, in view of Goldowsky, US 6,068,588. Rau et al. lack an attachment to a rib cage. However, such a feature was known in the art, as seen from column 2, lines 33-36, of Goldowsky. To incorporate such an element in the Rau et al. system would have been obvious in order to better stabilize the implant and to lessen trauma to soft tissue, with further motivation having been provided by the discussion of Goldowsky at column 4, line 30 et seq.

The Applicant's remarks have been considered and are adequately addressed in the above grounds of rejection, which were necessitated by the altered scope of the amended and added claims. Therefore:

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Willse whose telephone number is 571-272-4762. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott, can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



**Dave Willse**  
**Primary Examiner**  
**Art Unit 3738**